

Title (en)

Heat curable polysiloxane release coatings.

Title (de)

Hitzehärtbare Polysiloxan-Trennschichtungen.

Title (fr)

Revêtement antiadhésifs à base de polysiloxanes durcissables par la chaleur.

Publication

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Application

EP 86103128 A 19860308

Priority

US 71033685 A 19850311

Abstract (en)

A heat curable coating composition which deposits a release coating containing a smaller proportion of silicone release material is disclosed. This composition comprises (1) an hydroxy-functional resin which is preferably a polyester resin; (2) a cross-linking agent for the polyester, such as an aminoplast resin; and (3) at least one and preferably a mixture of at least two reactive silicones which are preferably polysiloxanes. These two polysiloxanes comprise: (A) a hydrogen- or alkoxy-functional polysiloxane; and (B) an elastomeric polysiloxane reactive with the hydrogen- or alkoxy-functional polysiloxane to provide release properties. Either or both of the polysiloxanes are reactive with the hydroxy-functional resin or the cross-linking agent. Components (1), (2) and (3) are compatible in a liquid admixture which may contain a volatile inert organic solvent or which may be solvent-free. During the heat cure, the polysiloxanes in component (3) become incompatible with respect to the balance of the composition, and this causes stratification of the polysiloxanes to the surface of the cured coating when the composition is deposited upon a paper or plastic substrate and heated to cure the same. The hydroxy-functional resin and its cross-linking agent go to the paper surface and fill its porosities to minimize the amount of polysiloxane needed to provide the desired release properties.

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